



Experimental Lake Erie Harmful Algal Bloom Bulletin

2009-012

08 October 2009

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 01 October 2009

Conditions: A *Microcystis* spp. bloom is present in the western basin of Lake Erie. A mixed cyanobacterial bloom is also present in Sandusky Bay.

Analysis: Imagery is a week old due to recent cloudy weather. Continued strong winds have caused further mixing and stress of the bloom. In addition, forecasted decreasing water temperatures indicate the demise of the bloom is approaching within the next week or two. -Neff, Tomlinson

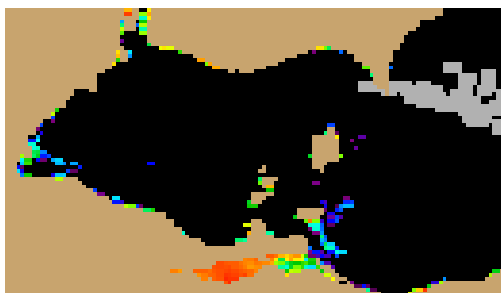


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from October 01, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low) , + (very low) and X (not present). Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

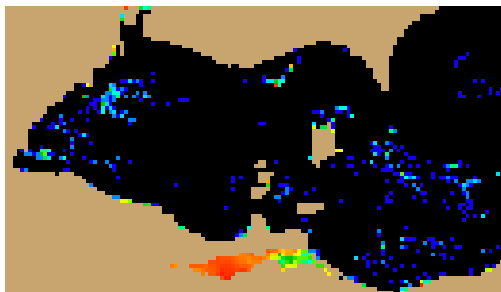


Figure 2. Nowcast position of *Microcystis* spp. bloom for October 08 using GLCFS modeled currents to move the bloom from the October 01 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

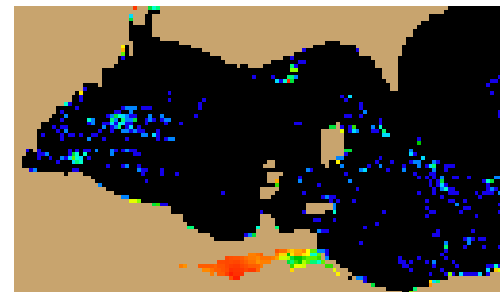


Figure 3. Forecast position of *Microcystis* spp. for October 11 using GLCFS modeled currents to move the bloom from October 01 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

Please note:

- MERIS imagery was distributed by the NOAA CoastWatch Program and provided by the European Space Agency
- Cell counts were collected by the Great Lakes Environmental Research Laboratory
- The wind data is available through the National Data Buoy Center and the National Weather Service
- Modeled currents were provided through the Great Lakes Coastal Forecasting System

